

#### **Estimation of Soil Direct Contact/Ingestion Remediation Level**

The remediation level (REL) for the direct contact/ingestion pathway for total TPH in soil at this site was estimated using the Washington State Department of Ecology MTCATPH (Version 10) model in accordance with guidance outlined in *Workbook Tools for Calculating Soil and Ground Water Cleanup Levels under the Model Toxics Control Act Cleanup Regulation User's Guide, Publication No. 01-09-073*, dated August 2001. The model was run using site-specific chemical data from 14 soil samples that were collected from within the zone of petroleum impact. The model was run using default toxicity values and exposure assumptions for the unrestricted land use scenario. For each of the 14 samples two values were derived: one corresponding to the TPH concentration at which the Hazard Index (HI) for non-cancer risk would be equal to 1 and one corresponding to the TPH concentration at which the cancer risk would be equal to 1x10<sup>-5</sup>. MTCATPH worksheets showing input and output parameters for each sample are attached. The TPH values are summarized in the following table:

Sample	TPH @ H1=1 (mg/kg)	TPH @ Risk = 1E10-5 (mg/kg)
SB2-6.5	2,589	618,333
SB6-7	2,656	298,001
SB11-3.5	2,763	740,942
SB12-5.5	3,036	355,041
SB14-5.5	3,378	328,481
SB16-8	3,154	191,466
SB18-8	2,910	66,295
SB20-4.5	2,985	1,293,552
SB22-1	2,225	1,153,226
SB23-4.5	3,116	1,463,253
SB24-4	3,325	26,673
SB27-4.5	3,390	73,046
SB38-2.5	2,618	7,691,185
SB39-5	2,497	313,732
Maximum	3,390	7,691,185
Minimum	2,225	26,673
Mean	2,903	1,043,802
Median	2,948	341,761

Calculated TPH values for cancer risk =  $1 \times 10^{-5}$  are extremely high (far above soil concentrations that would be physically possible); this reflects the very low fraction of carcinogenic compounds present in the soil samples. Calculated TPH values for non-cancer risk (HI = 1) fall within a very narrow range around 3,000 mg/kg. In order to be conservative (protective), the minimum calculated TPH concentration of **2,225 mg/kg** was selected as the REL for total TPH (i.e., the total concentration of TPH-Gx + TPH-Dx) that is protective of the direct contact/ingestion pathway under the unrestricted land use exposure scenario at this site.

#### **MTCATPH Worksheets**

**TPH** @ **HI** = 1

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB2-6.5

		4.19E-08	1.00E+00 4.19E-08	2.59E+03		2.0315-08	4.84E-01							66974091	\$,745.4.1.
						2020	1045.51							1754 786	Spin
		5.97%-10		6.19E-04		2.89E-10		0.73	**********	0.89	0.13	0.2		0.0003	Indeno(1,2,3-cd)pyrene
	*****	2.39E-09	···	6.19E-04		1.16E-09		2.92		0.89	0.13	0.2		0.0003	Dibenzo(a,h)anthracene
ĺ		7.97E-10		8.26E-03		3.86E-10		0.073	••••	0.89	0.13	0.2	_	0.004	Chrysene
Averagi		**********		6.19E-04		2.89E-09		7.3		0.89	0.13	0.2	_	0.0003	Benzo(a)pyrene
for Ca	cPAHs			6.19E-04	cPAHs	2.89E-10		0.73		0.89	0.13	0.2	_	0.0003	Benzo(k)fluoranthene
Dermal	all	5.97E-10		6.19E-04	all	2.89E-10		0.73		0.89	0.13	0.2		0.0003	Benzo(b)fluoranthene
Soil Ing	for	5.97E-10		6.19E-04	for	01-368°E		0.73		0.89	0.13	0.2		0.0003	Benzo(a)anthracene
Exposu		2.03E-10	9.31E-07	2.06E-03		9.85E-11	4.51E-07	0.091	0.03	0.8	0.03	0.2	_	0.001	1,2 Dichloroethane (EDC)
Exposur		0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00		58 Us	0.000057	0.8	0.03	0.2		0	Ethylene Dibromide (EDB)
Averagi				0.00E+00					•					0	MTBE
Average			6.52E-04	2.89E+00			3.16E-04		0.06	0.8	0.03	0.2	_	- - -	n-Hexane
for Non			1.70E-06	2.06E-03			8.26E-07		0.02	0.89	0.13	0.2	_	100.0	Total Naphthalenes
			4.85E-06	7.23E-01			2.35E-06		2	0.9	0.03	0.2	-	0.35	Total Xylenes
ſ			7.38E-04	5.51E+00			3.58E-04		0.1	0.92	0.03	0.2		2.67	Ethylbenzene
Ç			4,40E-05	6.61E-01			2.13E-05		0.2		0.03	0.2		0.32	Toluene
		3.01E-08	2.28E-03	5.47E-01		1.46E-08	1.11E-03	0.055	0.003	0.95	0.0005	0.2	****	0.265	Benzene
*****			1.21E-02	2.02E+01			5.88E-03		0.03	0.5	0.1	0.2	3	9.7994	AR_EC>21-34
			1.16E-01	1.94E+02			5.64E-02		0.03	0.5	0.1	0.2		93.9948	AR_EC >16-21
			3.27E-02	9.08E+01			1.58E-02		0.05	0.5	0.1	0.2		4	AR_EC >12-16
			3.74E-03	1.38E+01			1.81E-03		0.05	8.0	0.03	0.2	_	6.699	AR_EC >10-12
			2.92E-02	1.08E+02			1.41E-02		0.05	0.8	0.03	0.2	_	52.28	AR_EC>8-10
			4.64E-04	5.16E+01			2.25E-04		2	0.5	0.1	0.2	1	25	AL EC>21-34
	-		5.20E-03	5.78E+02			2.52E-03		ы	0.5	0.1	0.2	****	280	AL_EC>16-21
			5.82E-01	9.70E+02			2.82E-01		0.03	0.5	0.1	0.2		470	AL_EC >12-16
ſ			1.58E-01	3.51E+02			7.67E-02		0.03	0.8	0.03	0.2	budurt.	170	AL_EC >10-12
G,			5.58E-02	1.24E+02			2.70E-02		0.03	0.8	0.03	0.2		59.9	AL_EC >8-10
			1.84E-04	7.76E+01			8.9E-05		5.7	0.8	0.03	0.2	-	37.6	AL_EC >6-8
				0.00€±00					5.7	8.0	0.03	0.2	-	0	AL_EC >5-6
															Petroleum EC Fraction
Ī		unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
1		RISK	ā			RISK	æ	$CPF_s$	RCD <sub>c</sub>	2	ABS	ĄF	ABI	dry basis	or EC Group
	Fails			being tested	Fair	•								Conc	Chemical of Concern
p. Cn	Dage of			Soil Conc	Passor									Measured Soil	
		ondition	Adjusted Condition	1	noi	Current Condition	Cur	loxicity Parameters	l exicity i	3	arameter	exposure Parameters			
ad															

- a. "TPH Test" button below is for testing adjusted condition at a specified TPH concentration.
   b. Check columns at left for Pass/Fail detail.

Check Residual Saturation (WAC340-747(10))	HI= 1.000E+00 Cancer RISK= 4.188E-08 Pass or Fail? Pass	Adjusted Condition		Check Residual Saturation (WAC340-747(10))	1PH, mg/kg= 1254.286 HI= 4.844E-01 Cancer RISK= 2.028E-08 Pass or Fail? Pass	
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Exposure Parameters	ters	
for Non-carcinogens		Units
Average Body Weight, ABW	16	Kg.
Averaging Time, AT	6	¥ .
Exposure Frequency, EF	inco.	unitless
Exposure Duration, ED	Φ	¥
Soil Ingestion Rate, SIR	200	mg/day
Dermal Surface Area, SA	2200	cm <sup>2</sup>
for Carcinogens		
Averaging time, AT C	75	ΥΓ

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB6-7

		1.000.100 0.315-00	1.000.100	2.00L (0.3		m-701700	Charles Can Ala								
		0015 00	005.300	2 665 03		3 0015-08	1325							864.584	Sum
		8.89E-10		9.22E-04		2.89E-10		0.73		0.89	0.13	0.2	1	0.0003	Indeno(1,2,3-cd)pyrene
		3.56E-09		9.22E-04		1.16E-09		2.92		0.89	0.13	0.2		0.0003	Dibenzo(a,h)anthracene
		1.78E-09		1.84E-02		5.79E-10		0.073		0.89	0.13	0.2	***	0.006	Chrysene
- II		8.89E-09		9.22E-04		2.89E-09		7.3		0.89	0.13	0.2		0.0003	Benzo(a)pyrene
	cPAHs	8.89E-10		9.22E-04	cPAHs	2.89E-10		0.73		0.89	0.13	0.2		0.0003	Benzo(k)fluoranthene
Dennal Surface Area, SA		8.89E-10		9.22E-04	all	2.89E-10		0.73		0.89	0.13	0.2	-	0.0003	Benzo(b)Huoranthene
Soil Ingestion Rate, SIR	for	01-368'8		9.22E-04	for	2.89E-10		0.73		0.89	0.13	0.2		0.0003	Benzo(a)anthracene
Exposure Duration, ED		3.03E-10	1.39E-06	3.07E-03		9.85E-11	4.51E-07	160'0	0.03	8.0	0.03	0.2		0.001	1,2 Dichloroethane (EDC)
Exposure Frequency, EF	. <del></del>	0.00E+00 0.00E+00	0.00E+00	0.00E+00		0.00E+00		95 95	0.000057	8.0	0.03	0.2			Ethylene Dibromide (EDB)
Averaging Time, AT		~~~~		0.00E+00										. •	MISE
Average Body Weight, ABW			4.43E-03	1.97E+01			1.44E-03		0.06	0.8	0.03	0.2		6.4	n-Hexane
for Non-carcinogens			4.31E-03	5.22E+00			1.406-03		0.02	0.89	0.13	0.2			Potal Naphthalenes
Exposure Par			3.50E-05	5.22E+00			1.14E-05		2	0.9	0.03	0.2	-	1.7	Total Xylenes
			2.43E-03	10+318.1			7.90E-04		0.1	0.92	0.03	0.2	_	5.9	Ethylbenzene
Check Residual Sati	•		3.34E-05	5.01E-01			1.09E-05		0.2		0.03	0.2		0.163	l'oluene
Pass or Fa	1	7.10E-08	5.38E-03	1.29E+00		2.31E-08	1.75E-03	0.055	0.003	0.95	500070	0.2	1000	0.42	Benzene
Cancer RIS			2.21E-02	3.69E+01			7.20E-03		0.03	0.5	0.1	0.2	-	11.9994	AR_EC >21-34
1			1.36E-01	2.27E+02			4.44E-02		0.03	0.5	0,1	0.2	leuse	73.9928	AR_EC >16-21
TPH, mg/		••••	3.76E-02	1.04E+02			1.22E-02		0.05	0.5	0.1	0.2	_	دي . 4	AR_EC>12-16
Adjust			3.41E-03	1.26E+01			1.1E-03		0.05	0.8	0.03	2.0	-	<u>+</u>	AN_02 /10-12
	• • • •		2.10E-02	7.77E+0			6.85E-03		0.05	2 0	0.00	3 6		. E.	CI 015.73 dv
			2,77,77	010010:01			1000000		200	0	0.03	9.3	-	2.54	AR EC >8-10
			7 745-04	8.60E±01			2.52E-04		2	0.5	0.1	0.2		28	AL EC>21-34
			6.08E-03	6.76E+02			1.98E-03		2	0.5	0.1	0.2	****	220	AL_EC >16-21
-			5.90E-01	9.83E+02			1.928-01		0.03	0.5	<u> </u>	0.2		320	AL_EC >12-16
			1.27E-01	2.83E+02			4.15E-02		0.03	0.8	0.03	0.2		92	AL_EC >10-12
			3.87E-02	8.57E+01			1.26E-02		0.03	0.8	0.03	0.2	_	27.9	AL_EC>8-10
Pass or F	•		8.02E-05	3.38E+01			2.6E-05		5.7	0.8	0.03	0.2	_	p	AL_EC>6-8
Cancer RIS		**********		0.00E+00					5.7	8.0	0.03	0.2		0	AL_EC >5-6
															Petroleum EC Fraction
TPH mo/		unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
Curre		RISK	Он			RISK	ЭH	CPF,	RM,	2	ABS	AF	ABI	dry basis	or EC Group
- 2	Pass or			being tested	Fail?									Conc	Chemical of Concern
b. Check columns at					j	**********					***************************************	••••		Measured Soil	
concentration.		ondition	Adjusted Condition		tion	Current Condition	Cur	Toxicity Parameters	Toxicity	rs	Paramete	Exposure Parameters			
adjusted condition															

 a. "TPH Test" button below is for testing adjusted condition at a specified TPH concentration.

Check columns at left for Pass/Fail detail

Adjusted Condition  TPH, mg/kg= 204.504  Cancer RISK= 2.901E-08  Pass or Fail? Pass  Adjusted Condition  TPH, mg/kg= 2655.828  HI= 1.000E+00  Cancer RISK= 8.912E-08  Pass or Fail? Pass  Check Residual Saturation (WAC340-747(10))	Current Condition
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Exposure Parameters

Units

200

unitless

¥ %

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3/27/2006: SB2-6.5

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB11-3.5

		3.73E-08	1.00E+00 3.73E-08	2.76E+03		1.84E-08	4.92E-01							1,000.409	BBBC
		5.88E-10		6.09E-04		2.89E-10		0./3		0.89	0.13	2.0		0.0003	macmo(1,2,5,0)pyrons
	-	2.35E-09		6.095-04		1.165-09		2.72		0.00	5 5	) ;		0.0003	indens(10 adjusters
		1.37E-09		1.42E-02		6.75E-10		0.073		0.89	0.13	0.2		0.007	Chrysene Dibenzo/a blanthracene
Averagin		•		6.09E-04		2.89E-09		7.3	*************	0.89	0.13	0.2		0.0003	Benzo(a)pyrene
for Car	cPAHs			6.09E-04	cPAHs	2.89E-10		0.73	**********	0.89	0.13	0.2	-	0.0003	Benzo(k)fluoranthene
Dermal S	all	5.88E-10		6.09E-04	all	2.89E-10		0.73		0.89	0.13	0.2	_	0.0003	Benzo(b)fluoranthene
Soil Inge	for	7.84E-09		8.12E-03	for	3.86E-09		0.73		0.89	0.13	0.2	,	0.004	Benzo(a)anthracene
Exposure		2.00E-10	9.16E-07	2.03E-03		9.85E-11	4.51E-07	0.091	0.03	0.8	0.03	0.2	,	0.001	1,2 Dichloroethane (EDC)
Exposure		0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00		<b>%</b> 5	0.000057	0.8	0.03	0.2	jangaji	٥	Ethylene Dibromide (EDB)
Averagin				0.00E+00					-					٥	MTBE
Амегаде В			1.42E-02	6.30E+01			6.99E-03		0.06	0.8	0.03	0.2	•	. <u>31</u>	n-Hexane
for Non-			2.01E-02	2.44E+01			9.91E-03		0.02	0.89	0.13	0.2	-	12	Total Naphthalenes
			2.32E-05	3.45E+00			1.14E-05		2	0.9	0.03	0.2	_	1.7	Total Xylenes
			4.35E-03	3.25E+01			2.14E-03		0.1	0.92	0.03	0.2	-	16	Ethylbenzene
Che			4.44E-05	6.66E-01			2.19E-05		0.2		0.03	0.2	_	0.328	Toluene
		1.79E-08		3.25E-01		8.81E-09	6.67E-04	0.055	0.003	0.95	0.0005	0.2	,	0.16	Benzene
•••••			1.46E-02	2.44E+01			7.20E-03		0.03	0.5	0.1	0.2		11.9994	AR_EC >21-34
			1.22E-01	2.03E+02			6.00E-02		0.03	0.5	0.1	0.2	***	99,9881	AR_EC >16-21
			4.90E-02	1.36E+02			2.41E-02		0.05	0.5	9	0.2		67	AR_EC >12-16
			2.75E-03	1.02E+01			1.35E-03		0.05	8.0	0.03	0.2	-	Ų,	AR_EC >10-12
_			3.44E-02	1.27E+02			1.69E-02		0.05	8.0	0.03	0.2		62.5	AR_EC >8-10
			6.03E-04	6.70E+01			2.97E-04		2	0.5	0.1	0.2	-	33	AL_EC >21-34
			6.03E-03	6.70E+02			2.97E-03		2	0.5	9.	0.2	www	330	AL_EC >16-21
			5,48E-01	9.14E+02	*******		2.70E-01		0.03	0.5	0.	0.2	***	450	AL_EC >12-16
0,77			1.37E-01	3.05E+02			6.77E-02		0.03	8.0	0.03	0.2	broke	150	AL_EC >10-12
Chi			4.46E-02	9.89£+01		*********	2.20E-02		0.03	0,8	0.03	0.2	_	48.7	AL_EC >8-10
			1025-04	10+35£8	••••		9.8E-05		5.7	8.0	0.03	0.2		41.1	AL_EC>6-8
				0.00E+00					5.7	0.8	0.03	0.2		0	AL_EC>5-6
		2000													Petroleum EC Fraction
Ī		unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
1	ī alī.	RISK	Æ	ı		RISK	ĦŌ	CPF,	RID <sub>o</sub>	9	ABS	AF	ABI	dry basis	or EC Group
	Fass or			being tested	Fairo									Cone	Chemical of Concern
b. Che	3			Suit Come	Dane of									Measured Soil	
con		ondition	Adjusted Condition	,	ion	Current Condition	Cur	Toxicity Parameters	lexicity	13	aramete	Exposure Parameters			
adju												2	1		

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lest button below is for ted condition at a specified entration.	<ul> <li>lest button below is for t sted condition at a specified entration.</li> </ul>	H Test" button below is for t isted condition at a specified centration.	usted condition at a specified rentration.	PH Test" button below is for fall street condition at a specified incentration.	JPH Test button below is for fujusted condition at a specified oncentration.	TPH Test button below is for fadjusted condition at a specified concentration.	adjusted condition at a specified TPH concentration.	<ul> <li>adjusted condition at a specified concentration.</li> </ul>	<ul> <li>a. TIPH Test button below is for the adjusted condition at a specified concentration.</li> </ul>	<ul> <li>a. "IPH Test" button below is for testing adjusted condition at a specified TPH concentration.</li> </ul>
lest button below is for leted condition at a specifie attraction.	<ul> <li>lest button below is for i sted condition at a specifie entration.</li> </ul>	H Test button below is for i isted condition at a specifie centration.	usted condition at a specifie centration.	PH Test" button below is for i fjusted condition at a specifie incentration.	IPH Test button below is for a djusted condition at a specifie oncentration.	TPH Test button below is for adjusted condition at a specifie concentration.	adjusted condition at a specific concentration.	adjusted condition at a specific concentration.	<ul> <li>a. TIPH Test button below is for adjusted condition at a specifie concentration.</li> </ul>	<ul> <li>a. "IPH lest" button below is for adjusted condition at a specifie concentration.</li> </ul>
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lest button below is for ted condition at a specifie attraction.	<ul> <li>lest button below is for sted condition at a specifie entration.</li> </ul>	H Test" button below is for isted condition at a specifie centration.	TH Test" button below is for usted condition at a specific reentration.	PH Test" button below is for ljusted condition at a specifie incentration.	IPH Test" button below is for djusted condition at a specifie oncentration.	TPH Test button below is for adjusted condition at a specifie concentration.	adjusted condition at a specifie concentration.	adjusted condition at a specific concentration.	<ul> <li>a. TPH Test button below is for adjusted condition at a specifie concentration.</li> </ul>	<ul> <li>a. "IPH lest" button below is for adjusted condition at a specifie concentration.</li> </ul>
lest button below is for ted condition at a specific entration.	<ul> <li>lest button below is for sted condition at a specific entration.</li> </ul>	H Test" button below is for isted condition at a specific centration.	TH Test" button below is for usted condition at a specific reentration.	PH Test' button below is for ljusted condition at a specific incentration.	JPH Test" button below is for djusted condition at a specific oncentration.	TPH Test button below is for adjusted condition at a specific concentration.	adjusted condition at a specific concentration.	adjusted condition at a specific concentration.	<ul> <li>a. "IPH lest" button below is for adjusted condition at a specific concentration.</li> </ul>	<ul> <li>a. "IPH lest" button below is for adjusted condition at a specific concentration.</li> </ul>
rest button below is for ted condition at a specification.	t lest button below is tor sted condition at a specifi- entration.	If lest button below is to isted condition at a specific centration.	usted condition at a specificentration.	I'H rest button below is tor sjusted condition at a specifination.	djusted condition at a specification.	adjusted condition at a specificoncentration.	adjusted condition at a specificoncentration.	adjusted condition at a specific concentration.	adjusted condition at a specificoncentration.	a. IPH lest button below is to adjusted condition at a specificoncentration.
rest button below is to ted condition at a specification.	rest button below is to sted condition at a specifientration.	rest button below is to isted condition at a specificentration.	usted condition at a specificentration.	If i est button below is to specifusted condition at a specifuncentration.	djusted condition at a specific oncentration.	adjusted condition at a specificoncentration.	adjusted condition at a specificoncentration.	adjusted condition at a specificoncentration.	a. IPH lest button below is to adjusted condition at a specificoncentration.	a. 1PH lest button below is to adjusted condition at a specificoncentration.
rest button below is to ted condition at a speci-	rest button below is to sted condition at a speci-	H rest button below is to isted condition at a speci-	usted condition at a speci- ncentration.	If i est button below is to flusted condition at a speci- incentration.	djusted condition at a specion oncentration.	adjusted condition at a speci-	adjusted condition at a speci concentration.	adjusted condition at a speci concentration.	adjusted condition at a speci- concentration.	a. IPH lest button below is to adjusted condition at a speci concentration.
rest button below is ted condition at a specentration.	entration.	H Test button below is t isted condition at a spec centration.	usted condition at a spectoentration.	If i lest button below is full sted condition at a speconcentration.	djusted condition at a speconcentration.	adjusted condition at a spec concentration.	adjusted condition at a spec concentration.	adjusted condition at a spec concentration.	adjusted condition at a spec concentration.	a. IPH lest button below is the adjusted condition at a spec concentration.
rest button below is ted condition at a specentration.	t rest button below is sted condition at a specentration.	H Test button below is isted condition at a specentration.	usted condition at a spec ncentration.	If i est button below is flusted condition at a speconcentration.	djusted condition at a speconcentration.	adjusted condition at a spec concentration.	adjusted condition at a spec concentration.	adjusted condition at a spec concentration.	a. IPH Fest button below is adjusted condition at a spec concentration.	adjusted condition at a spec concentration.
rest button below is ted condition at a spentration.	rest button below is sted condition at a specentration.	H lest button below is isted condition at a specentration.	usted condition at a spencentration.	If i est button below is slighted condition at a spenicentration.	djusted condition at a speoncentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.
rest button below is ted condition at a spentration.	t rest button below is sted condition at a specentration.	H rest button below is usted condition at a specentration.	usted condition at a spencentration.	If i est button below is flusted condition at a spenicentration.	djusted condition at a speoncentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.	adjusted condition at a speconcentration.
rest button below red condition at a spentration.	rest button below rested condition at a speentration.	H rest button below rusted condition at a spuce centration.	usted condition at a spacentration.	If rest button below religious ted condition at a spondern account at the spondern testing.	djusted condition at a sponcentration.	adjusted condition at a spontage concentration.	adjusted condition at a spiconcentration.	adjusted condition at a sponoconcentration.	adjusted condition at a spondentration.	adjusted condition at a sponsormer concentration.
rest button below ted condition at a spentration.	t rest button below sted condition at a spentration.	H Test button below isted condition at a spicentration.	usted condition at a spacentration.	Justed condition at a sponcentration.	djusted condition at a sponcentration.	adjusted condition at a sp concentration.	adjusted condition at a sp concentration.	adjusted condition at a sp concentration.	adjusted condition at a sp concentration.	a. TPH Test button below adjusted condition at a sp concentration.
rest button below ted condition at a spantation.	entration.	H lest button below usted condition at a specific contration.	usted condition at a sincentration.	Justed condition at a spondering the specific process.	djusted condition at a si oncentration.	adjusted condition at a spontation.	adjusted condition at a si concentration.	adjusted condition at a si concentration.	adjusted condition at a specific concentration.	a. TPH Test button below adjusted condition at a specific concentration.
rest button below ted condition at a sentration.	sted condition at a sentration.	H rest button below usted condition at a scentration.	usted condition at a sacentration.	If lest button below lighted condition at a soncentration.	djusted condition at a soncentration.	adjusted condition at a sconcentration.	adjusted condition at a s concentration.	adjusted condition at a sconcentration.	a. IPH rest button below adjusted condition at a sconcentration.	a. THE Fest button below adjusted condition at a sconcentration.
rest button below ted condition at a entration.	entration.	H rest button below isted condition at a centration.	usted condition at a centration.	If lest button below by the fest button at a subjusted condition at a subjusted fest button.	djusted condition at a oncentration.	adjusted condition at a concentration.	adjusted condition at a concentration.	adjusted condition at a concentration.	adjusted condition at a concentration.	adjusted condition at a concentration.
lest" button belo ted condition at a entration.	entration.	H lest button belousted condition at a centration.	usted condition at a centration.	PH Test" button belo ljusted condition at a procentration.	djusted condition at a oncentration.	adjusted condition at a concentration.	adjusted condition at a concentration.	adjusted condition at a concentration.	a. "IPH Test" button belo adjusted condition at a concentration.	a. "IPH Test" button belo adjusted condition at a concentration.
lest button belified condition at a entration.	sted condition at a entration.	H Test" button beli isted condition at a centration.	usted condition at a neentration.	If lest button belificated condition at a procentration.	djusted condition at a oncentration.	adjusted condition at a concentration.	adjusted condition at a concentration.	adjusted condition at a concentration.	a. TPH Test button beli adjusted condition at a concentration.	a. TPH Test button belication at a concentration.
test button be ted condition at entration.	sted condition at entration.	H rest button be usted condition at centration.	usted condition at accentration.	Justed condition at procentration.	iPH Test" button be djusted condition at oncentration.	adjusted condition at concentration.	adjusted condition at concentration.	adjusted condition at concentration.	a. "IPH Test" button be adjusted condition at concentration.	a. "IPH Test" button be adjusted condition at concentration.
test button be ted condition at entration.	sted condition at entration.	H Test" button butsted condition at centration.	usted condition at accentration.	Justed condition at procentration.	djusted condition at oncentration.	adjusted condition at concentration.	adjusted condition at concentration.	adjusted condition at concentration.	a. "IPH Test" button be adjusted condition at concentration.	a. "IPH Test" button be adjusted condition at concentration.
test button ted condition a	sted condition a entration.	Isted condition a sentration.	usted condition and contration.	Justed condition a succentration.	djusted condition a oncentration.	adjusted condition a concentration.	adjusted condition a concentration.	adjusted condition a concentration.	a. "IPH Test" button to adjusted condition a concentration.	adjusted condition a concentration.
test button ted condition entration.	sted condition entration.	I lest button usted condition centration.	usted condition neentration.	If i est button lijusted condition oncentration.	djusted condition oncentration.	adjusted condition concentration.	adjusted condition concentration.	adjusted condition concentration.	adjusted condition concentration.	adjusted condition concentration.
test button ted condition entration.	sted condition entration.	H Test button isted condition centration.	usted condition centration.	If I est button ijusted condition incentration.	djusted condition oncentration.	adjusted condition concentration.	adjusted condition concentration.	adjusted condition concentration.	a. "IPH Test" button adjusted condition concentration.	a. "IPH Test" button adjusted condition concentration.
ted condition	sted condition.	If lest butto isted condition centration.	usted condition centration.	Justed condition incentration.	djusted condition	adjusted condition concentration.	adjusted condition concentration.	adjusted condition concentration.	a. TPH Test butto adjusted condition concentration.	adjusted condition concentration.
ted condition.	sted condition.	H rest buttusted condition.	usted conditing centration.	ijusted condition.	djusted condition.	adjusted condition.	adjusted condition.	adjusted conditiconcentration.	a. "IPH Test" butt adjusted conditi concentration.	adjusted condition.
ted conditentration.	sted condition.	H rest but isted condition.	usted conditusted contration.	Justed condition.	djusted condition.	adjusted condit concentration.	adjusted condit concentration.	adjusted condit concentration.	adjusted condit concentration.	adjusted condition.
ted cond ntration.	sted cond entration.	H Test" bu Isted cond centration.	usted cond ncentration.	Justed cond incentration.	djusted cond oncentration.	adjusted cond concentration.	adjusted cond concentration.	adjusted cond concentration.	a. "IPH Test" but adjusted cond concentration.	adjusted cond concentration.
ted condentration	sted concentration	H Test busted concentration	usted conducentration	Jjusted condition	djusted condoncentration	adjusted conconcentration	adjusted condition	adjusted conconcentration	adjusted conconcentration	adjusted conconcentration
ted cor	sted cor	Isted corcentration	usted corncentration	Justed cor ncentration	djusted cor oncentratio	adjusted con	adjusted conconcentration	adjusted conconcentration	adjusted con	adjusted conconcentration
ted co	sted co	H Test	usted concentration	Justed co	djusted co oncentration	adjusted co	adjusted co concentration	adjusted co concentration	adjusted co	a. TPH Test
ted co	sted co	H Test Isted co	usted concentrati	Jjusted concentrati	djusted co	adjusted co	adjusted co	adjusted co	adjusted co	a. TPH Test adjusted co concentrati
ted c	sted c	H Test Isted c	usted c	Jjusted c	djusted concentra	adjusted c	adjusted c concentra	adjusted c	adjusted c	a. TPH Test adjusted c concentra
ted rex	sted	H lex	usted usted	Jjusted incentra	djusted oncentra	adjusted concentra	adjusted concentra	adjusted concentra	adjusted concentra	a. TPH Tes adjusted concentra
n e	sted	H re	usted ucentr	Justed incentr	djusted	adjusted concentr	adjusted concentr	adjusted concentr	a. TPH Te adjusted concentr	a. TPH Te adjusted concent
<u>3</u> 0 −	en en	cen H	neste Treen	Juste incen	djuste oncen	adjuste concen	adjuste concen	adjuste concen	adjuste concen	a, IPH I adjuste concen
¥ 27	⊕ & ~	CE X	JCer HStu	Just Just Jucer	djuste oncer	adjuste concer	adjuste concer	adjuste concer	a. "IPH adjuste concer	a. TPH adjuste concer
	γ (v) -λ	요하고	줐동국	Jus Jus	djus	adjus conce	adjus conce	adjus conce	a. TPH adjus conce	a. IPH adjus conce

heck columns at left for Pass/Fail detail.

Exposure Parameters	Hers	
or Non-carcinogens		Units
verage Body Weight, ABW	16	kg
veraging Time, AT	σ,	ጃ ፣
xposure Frequency, EF	_	unitless
xposure Duration, ED	э́х	Ϋ́
oil Ingestion Rate, SIR	200	mg/day
ermal Surface Area, SA	2200	cm².
or Carcinogens		
veraging time, AT C	75	JA

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB12-5.5

		8.55E-08	1.00E+00 8.55E-08	3.04E+03		2.74E-09	3.21E-02							97.4546	Sum
		4.51E-09		4.67E-03		1.45E-10		0.73		0.89	0.13	0.2	-	0.00015	Indeno(1,2,3-cd)pyrene
		1.80E-08		4.67E-03		5.79E-10		2.92	*********	0.89	0.13	0.2	****	0.00015	Dibenzo(a,h)anthracene
		4.51E-10		4.67E-03		1.45E-11		0.073	************	0.89	0.13	0.2		0.00015	Chrysene
Averagi				4.67E-03		1.45E-09		7.3	·····	0.89	0.13	0.2	-	0.00015	Benzo(a)pyrene
for Ca	cPAHs			4.67E-03	cPAHs	1.45E-10		0.73		0.89	0.13	0.2		0.00015	Benzo(k)fluoranthene
Dermal	all	4.51E-09		4.67E-03	all	1.45E-10		0.73		0.89	0.13	0.2	_	0.00015	Benzo(b)fluoranthene
Soil Inc.	(or	4.51E-09		4.67E-03	for	1.45E-10		0.73		0.89	0.13	0.2		0.00015	Benzo(a)anthracene
Exposur		3.07E-09	1.41E-05	3.12E-02		9.85E-11	4.51E-07	0.091	0.03	0.8	0.03	0.2	<b>,</b>	0.001	1,2 Dichloroethane (EDC)
Tuscour.		0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00		85	0.000057	0.8	0.03	0.2	,,,,,,,	٣	Ethylene Dibromide (EDB)
Average				0.00E+00										0	MTBE
Average			3.93E-04	1.74E+00			1.26E-05		0.06	0.8	0.03	0.2		0.056	n-Flexane
for Non			2.57E-05	3.12E-02			8.26E-07		0.02	0.89	0.13	0.2		100.0	Total Naphthalenes
7			2.09E-07	3.12E-02			6.71E-09		2	0.9	0.03	0.2	-	0.001	Total Xylenes
ſ			4.17E-06	3.12E-02			1.34E-07		0.1	0.92	0.03	0.2	-	0.001	Ethylbenzene
			131E-04	1.97E+00			4.20E-06		0.2		0.03	0.2	_	0.0631	Toluene
		8.58E-10	6.50E-05	1.56E-02		2.75E-11	2.09E-06	0.055	0.003	0.95	0.0005	0.2		0.0005	Benzene
			2.24E-02	3.74E+01			7.20E-04		0.03	0.5	0.1	0.2	,,,,,,	1.1997	AR_EC >21-34
			1.105-01	1.84E+02			3.54E-03		0.03	0.5	0.1	0.2	www	5.89925	AR_EC >16-21
			2.13E-02	5.92E+01	***************************************		6.84E-04		0.05	0.5	0.	0.2		1.9	AR_EC > 12-16
			4.21E-03	1.55E+01			1.35E-04		0.05	0.8	0.03	0.2	_	0.499	AR_EC >10-12
			7.06E-02	2.61E+02			2.26E-03		0.05	0.8	0.03	0.2	_	8.368	AR_EC>8-10
			7.29E-04	8.10E+01			2.34E-05		2	0.5	0.1	0.2	1	2.6	AL EC>21-34
			6.45E-03	7.17E+02			2.07E-04		2	0.5	0.1	0.2	,,-	. 23	AL_EC>16-21
_			4.86E-01	8.10E+02			1.56E-02		0.03	0.5	0.1	0.2	. ,,,,,	26	AL_EC>12-16
ſ			8.29E-02	1.84E+02			2.66E-03		0.03	8.0	0.03	0.2	,	5.9	AL_EC>10-12
Ī			1.94E-01	4.30E+02			6.22E-03		0.03	0.8	0.03	0.2		13.8	AL_EC >8-10
			5.34E-04	2.25E+02			1.7E-05		5.7	0.8	0.03	0.2	interest	7.22	AL_EC >6-8
			6.98E-05	2.94E+01			2.2E-06		5.7	8.0	0.03	0.2		0.944	AL_EC >5-6
															Petroleum EC Fraction
Ī		unitless	unitless	mg/kg		unitless	шnitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unidess	mg/kg	
Ī		RISK	HQ.			RISK	Æ	CPF,	RID,	<u>Ω</u>	ABS	ΑF	ABI	dry basis	or EC Group
	Fair			being tested	Fails									Conc	Chemical of Concern
b. Ch	3			Sail Care	Passar									Measured Soil	
CO		ondition	Adjusted Condition	7	tion	Current Condition	Cur	l'oxicity Parameters	loxicity	128	aramete	Exposure Parameters			
ad															

Check columns at left for Pass/Fail detail.

or Non-carcinogens		f Thits
Verage Body Weight, ABW	16	kg
Averaging Time, AT	Ġ.	Υ .
Exposure Frequency, EF		unitless
Exposure Duration, ED	σ.	¥
soil Ingestion Rate, SIR	200	mg/day
Jermal Surface Area, SA	2200	cm,
or Carcinogens		NO.

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB14-5.5

		1.03E-07	1.00E+00	3.38E+03  1.00E+00  1.03E-07		2.36E-08	2.30E-01							775.899	Sun
		1.26E-09		1.31E-03		2.89E-10		0.73		0.89	0.13	0.2		0.0003	Indeno(1,2,3-cd)pyrene
		5.04E-09		1.31E-03		1.16E-09		2.92		0.89	0.13	0.2		0.0003	Dibenzo(a,h)anthracene
		5.46E-09	*******	5.66E-02		1.25E-09		0.073		0.89	0.13	0.2	,	0.013	Chrysene
Averagi			····	1.31E-03		2.89E-09		7.3		0.89	0.13	0.2		0.0003	Benzo(a)pyrene
for Car	cPAHs			1.31E-03	cPAHs	2.89E-10		0.73	****	0.89	0.13	0.2		0.0003	Benzo(k)fluoranthene
Dermal	all	1.26E-09		1.31E-03	all	2.89E-10	~~~~	0.73		0.89	0.13	0.2	_	0.0003	Benzo(b)fluoranthene
Soil Inge	for	1.68E-08		1.74E-02	for	3.86E-09		0.73		0.89	0.13	0.2	_	0.004	Benzo(a)anthracene
Exposure		4.29E-10	1.96E-06	4.35E-03		9.85E-11	4.51E-07	0.091	0.03	0.8	0.03	0.2	-	0.001	1,2 Dichloroethane (EDC)
Pynosin		0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00		85	0.000057	8.0	0.03	0.2		0	Ethylene Dibromide (EDB)
Average				0.00E+00										0	MTBE
эоктэл			1.47E-03	6.53E+00			3.38E-04		90.0	0.8	0.03	0.2		1.5	n-Hexane
for Non-			9.71E-03	1.18E+01			2.23E-03		0.02	0.89	0.13	0.2		2.7	Total Naphthalenes
1			3.53E-04	5.27E+01			8.12E-05		2	0.9	0.03	0.2	-	12.1	Total Xylenes
			3.18E-03	2.38E+01			7.31E-04		0.1	0.92	0.03	0.2	_	5.46	Ethylbenzene
Chr.			1.40E-04	2.10E+00			3.22E-05		0.2		0.03	0.2		0.483	Toluene
		5.87E-08		1.07E+00		1.35E-08	1.02E-03	0.055	0.003	0.95	0.0005	0.2	****	0.245	Benzene
			2.25E-02	3.74E+01			5.16E-03		0.03	0.5	0.1	0.2		8.5994	AR_EC >21-34
			1.23E-01	2.05E+02			2.82E-02	•	0.03	0.5	0.	0.2	belive	46.9821	AR_EC >16-21
			2.51E-02	6.97E+01			5.76E-03		0.05	0.5	0.1	0.2		16	AR_EC >12-16
			2.83E-03	1.05E+01			6.50E-04		0.05	8,0	9.03	0.2	_	2.4	AR_EC >10-12
			1.36E-01	5.03E+02			3.12E-02		0.05	0.8	0.03	0.2	_	115.44	AR_EC >8-10
			9.01E-04	1.00E+02			2.07E-04		2	0.5	0.1	0.2	ì	23	AL EC>21-34
			5.88E-03	6.53E+02			1.35E-03		12	0.5	0.1	0.2		1 30	AL_E& >10-21
			3.92E-01	6.53E+02			9.00E-02		0.03	0.5	0.1	0.2		150	AL_EC >12-16
Ī			8.64E-02	1.92E+02			1.98E-02		0.03	8.0	0.03	0.2	irred	44	AL_EC>10-12
Ī			1.85E-01	4.11E+02			4.26E-02		0.03	8.0	0.03	0.2		94.4	AL_EC >8-10
			1.04E-03	4.40E+02			2.4E-04		5.7	0.8	0.03	0.2		101	AL_EC>6-8
			1.62E-05	6.84E+00			3.7E-06		5.7	8.0	0.03	0.2	_	1.57	AL_EC >5-6
				Min											Petroleum EC Fraction
		unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
		RISK	ΗQ			RISK	₽	CPF,	RID.	CI	ABS	ΑŦ	ABI	dry basis	or EC Group
	E 433 00			being tested	Fail?									Conc	Chemical of Concern
b. Che				Soil Conc	Pass or									Measured Soil	
6		ondition	Adjusted Condition	7	tion	Current Condition	Cur	loxicity Parameters	loxicity	J.	aramete	Exposure rarameters			
adji							7								

		ξĐ
concentration.	adjusted condition at a specified TPH	a. "TPH Test" button below is for testing

heck columns at left for Pass/Fail detail.

Pass or Fail? Pass  Adjusted Condition  TPH, mg/kg= 3378.478 HI= 1.000E+00 Cancer RISK= 1.029E-07	TPH, mg/kg= 775.899 HI= 2.297E-01 Cancer RISK= 2.362E-08
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for Non-carcinogens	Exposure Parameters	Check Residual Saturation (WAC340-747(10))	Pass or Fail?
Units		 WAC340-747(10))	Pass

Exposure Parameters	ters	
r Non-carcinogens		Units
verage Body Weight, ABW	7	É
veraging Time, AT	6	Ā
sposure Frequency, EF	_	unitless
sposure Duration, ED	6	yr
il Ingestion Rate, SIR	200	mg/day
ermal Surface Area, SA	2200	cm <sup>2</sup>
r Carcinogens		
veraging time, AT-C	75	УT

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB16-8

															adjusted condition
			Exposure Parameters	rameter	ľ	loxicity	loxicity Parameters	Curi	Current Condition	tion		Adjusted Condition	ondition		concentration.
2#	Measured Soil			<del></del>						!	: : )				b. Check columns at
Chemical of Concern	Conc									Pass or	Soil Conc			Pass or	
or &C Group	dry basis	ABI	AF	ABSa	2	RID,	CPF,	ΗQ	RISK			ĦŌ	RISK	201	Cirro
	mg/kg	unitless	mg/cm²-day	unitless	unitless	mg/kg-day	kg-day/mg	unitless	unitless		me/ke	unitless	mitess		11G1,
Petroleum EC Fraction											0 0		200		1111, 119/
AL_EC >5-6	1.81	_	0.2	0.03	8.0	5.7		4.3E-06			1.246+01	2.94E-05			Cancer RIC
AL_EC >6-8	32.9	_	0.2	0.03	0.8	5.7		7.8E-05			2.25E+02	5.348-04			Dase or E
AL_EC >8-10	8.81	-	0,2	0.03	8.0	0.03		8.48E-03			1.28E+02	5.79E-02			1 50 CCD 1
AL_EC >10-12	29		0.2	0.03	8.0	0.03		1.31E-02			1.98E+02	8.94E-02			
AL_EC >12-16	140		0.2	9.1	0.5	0.03		8.40E-02			9.56E+02	5.74E-01			
AL_EC>16-21	140		0.2	9	0.5	2		1.26E-03			9.56E+02	8.61E-03			
AL, EC>21-34	19		0.2	9.1	0.5	2		1.71E-04			1.30E+02	1.17E-03			
AR_EC>8-10	13.795	-	0.2	0.03	0.8	0.05		3.73E-03	;		9.42E+01	2.55E-02			
AR_EC >10-12	1.93	_	0.2	0.03	0.8	0.05		5.22E-04			1.32E+01	3.57E-03			Adjuste
AR_EC >12-16	13		0.2	0.1	0.5	0.05		4.68E-03			8.88E+01	3.20E-02			TPH, mo/k
AR_EC >16-21	39,9985		0.2	0.1	0.5	0.03		2.40E-02			2.73E+02	1.64E-01			9
AR_EC >21-34	6.9994	-	0.2	0.1	0.5	0.03		4.20E-03			4.78E±01	2.87E-02			Cancer RIS
Benzene	0.341	_	0.2	0.0005	0.95	0.003	0.055	1.42E-03	1.88E-08		2.33E+00	9.72E-03	1.28E-07		Pass or Fa
Toluene	0.129		0.2	0.03	3 -	0.2		8.59E-06			8.81E-01	5.87E-05			Check Residual Satu
Total Xylenes	0.645		0 0 1	9 8	0.92			4 33E 06			7.925+00	1.06E-03			
Total Naphthalenes	0.17		0.2	0.13	0.89	0.02		1.40E-04			1.16E+00	9 5915-04			Exposure Par
п-Нехапе	. 2	,,,,,	0.2	0.03	0.8	0.06		4.51E-04			1.37E+01	3.08E-03	·		Average Body Weight ABW
Figure Distriction (FDB)	<b>-</b> -		د	3	>		}	***********			0.00E+00				Averaging Time, AT
1,2 Dichloroethane (EDC)	0.001		0.2	0.03	8.0	0.00003/	0.091	4.51E-07	0.00E+00		0.00+300.0	0.00E+00 0.00E+00	0.00E+00		Exposure Frequency, EF
Benzo(a)anthracene	0.0003	_	0.2	0.13	0.89		0.73		2.89E-10	for	2.05E-03		1,985-09	for	Soil Investion Rate SIR
Berizo(b)fluoranthene	0.0003		0.2	0.13	0.89		0.73		2.89E-10	all	2.05E-03	•••	1.98E-09	all	Dermal Surface Area, SA
Benzo(k)fluoranthene	0.0003		0.2	0.13	0.89		0.73		2.89E-10	cPAHs	2.05E-03		1.98E-09	cPAHs	for Carcinogens
Benzo(a)pyrene	0.0003		0.2	0.13	0.89	****	7.3		2.89E-09		2.05E-03		1.98E-08		Averaging time, AT C
Chrysene	0.0003		0.2	0.13	0.89	•	0.073		2.89E-11		2.05E-03		1.98E-10		The state of the s
Dibenzo(a,n)aninracene	0.0003		0.2	0.13	0.89	***************************************	2.92		1.16E-09		2.05E-03		7.91E-09		
indeno(1,2,3-cd)pyrene	0.0003	L	0.2	0.13	0.89		0.73		2.89E-10		2.05E-03		1.98E-09		
Sun	461.681							1.46E-01	2.41E-08		3.15E+03	1.00E+00 1.6SE-07	1.65E-07		

neck columns at left for Pass/Fail detail.

HI= 1.464E-01 Cancer RISK= 2.411E-08 Pass or Fail? Pass  Adjusted Condition  TPH, mg/kg= 3153.770 HI= 1.000E+00 Cancer RISK= 1.647E-07 Pass or Fail? Pass	TPH, mg/kg= 461.681
---	---------------------

Contract accountant Cutter account (11/2/C)40-/4/(10))	M (MAC)40	7-/4/(10))
,		
Exposure Parameters	ers	
for Non-carcinogens		Units
Average Body Weight, ABW	16	kg
Averaging Time, AT	Ď.	¥ ,
Exposure Frequency, EF	project.	unitless
Exposure Duration, ED	ō	¥
Soil Ingestion Rate, SIR	200	mg/day
Dermal Surface Area, SA	2200	cm².

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB18-8

		4.39E-07	1.00E+00 4.39E-07	2.91E+03		1.41E-07	3.21E-01							200000	(/1.67)
<u>.                                    </u>		7.040-10		1.000		#1000 FO								102 201	Sum
		0 270 10		0.355.04		2 895-10		0.73		0.89	0.13	0.2		0.0003	Indeno(1,2,3-cd)pyrene
		3.61E-09		9.35E-04		1.16E-09		2.92		0.89	0.13	0.2	~~~	0.0003	Olbenzo(a,n)anthracene
		9.02E-11		9.35E-04		2.89E-11		. 0.073		0.89	0.13	0.2	_	0.0003	Chrysene
Averaging time AT C		9.02E-09		9.35E-04		2.89E-09		7.3		0.89	0.13	0.2		0.0003	Benzo(a)pyrene
for Carcinogens	cPAHs	9.02E-10		9.35E-04	cPAHs	2.89E-10		0.73		0.89	0.13	0.2		0.0003	Benzo(K)Huoranthene
Dermal Surface Area, SA	all	9.02E-10		9.35E-04	all	2.89E-10	~~~	0.73		0.89	0.13	2.0		0.0005	Denzo(o), morammene
Soil Ingestion Rate, SIR	for	9.02E-10		9.35E-04	for	2.89E-10		0.73		0.89	0.15	2.0		0.0003	Denzo(a)anuracene
Exposure Duration, ED		3.07E-10	1.41E-06	3.12E-03		9.85E-11	4.51E-07	0.091	0.03	0.8	0.03	0.2	-	0.001	(201) alemacaning 7.1
Exposure Frequency, EF		0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00		85	0.000057	0.8	9.03	0.2		) ()	elitylene Dioromide (EDB)
Averaging Time, AT				0.00E+00								:		) C	
Average Body Weight, ABW			1.206-02	5.30E+01			3.83E-03		0.06	0.8	0.03	2.0		~ ~	il-riexalie
for Non-carcinogens			1.29E-02	1.56E+01			4.13E-03		0.02	0.89	0.13	0.2		i u	rotal Naprimateries
Exposure Par			3.77E-04	5.61E+01			1.218-04		2	0.9	0.03	0.2	ŀ	Š	Total Vicality in the
			5.85E-03	4.37E+01			1.88E-03		0.1	0.92	0.03	0.2		<u>.</u>	curyocazene
Check Residual Sat			1.29E-04	1.93E+00			4.13E-05		0.2		0.03	0.2		0.62	Chartene
Pass or F		4.22E-07		7.67E+00		1.35E-07	1.03E-02	0.055	0.003	0.95	0.0005	0.2		2.46	Benzene
Cancer RIS			1.52E-02	2.53E+01			4.86E-03		0.03	0.5	0,1	0.2		8.0994	AR 50 >21-34
			1.12E-01	1.87E+02			3.60E-02		0.03	0.5	-01	0.2		39.9983	AK_EC >10-21
TPH, mg/			4.49E-02	1.25E+02	***********		1.44E-02		0.05	0.5	. 0.1	0.2		40	AR_EC >12-16
Adjust			5.06E-03	1.87E+01			1.62E-03		0.05	0.8	0.93	0.2	-	; c	71.01. 20 NV
			5.91E-02	2.18E+02			1.89E-02		60.0	0.8	0.03	2.0	- ,-	`	01-9-02-08
1			4.470-04	4.777,701					900	8	0.03	٥	-	47.5	AR EC >8-10
			4 405 04	4 995+01			1.44E-04		ы	0.5	<u> </u>	0.2		16	AL EC >21-34
			4.21E-03	4.68E+02			1.35E-03	***************************************	i.	0.5	0.1	0.2		150	AL_EC >16-21
Phartman			4.868.01	8.11E+02			1.56E-01		0.03	0.5	<u>e</u>	0.2	brood.	260	AL_EC >12-16
	•		705-0	2.65E+02			3.83E-02		0.03	8.0	0.03	0.2	_	85	AL_EC >10-12
1 TO CC 10			8.89E-02	1.97E+02			2.85E-02		0.03	0.8	0.03	0.2	_	63.2	AL_EC >8-10
Page or F	···		8.73E-04	3.68E+02			2.8E-04	•	5.7	0.8	0.03	0.2		<del>1</del> 18	AL_EC>6-8
(Sincer RIS				0.00E±00					5.7	0.8	0.03	0.2		0	AL_EC>5-6
1111, 118	-														Petroleum EC Fraction
TBU ma		unidess	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
Curre	•	RISK	Œ			RISK	ŧ	CPF,	RO	2	ABS	A	ABI	OFF PASS	or EC Group
	Pass or			being tested	Fail?					}		;	Ì	Conc	Chemical of Concern
o. Crieck columns at				6.4	3						•		****	Measured Soil	
concentration.		ondition	Adjusted Condition		tion	Current Condition	Cur	toxicity l'arameters	LOXICILY	7	aramete	Capacita i atantento			
adjusted condition												Fynosus			
Compa see to the see				,											

	l	
8		ò
concentration.	adjusted condition at a specified TPH	a. "TPH Test" button below is for testing

k columns at left for Pass/Fail detail.

Pass or Fail? Pass Check Residual Saturation (WAC340-747(10))	Pass Pass	-747(10))
Exposure Parameters	ST	
for Non-carcinogens		Units
Average Body Weight, ABW	16	kg
Averaging Time, AT	6	Уľ
Control Control Control		

200 2200

unidless yr mg/day cm<sup>2</sup>

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB20-4.5

			Exposure Parameters	rameter		Toxicity I	Toxicity Parameters	Curi	Current Condition	Ö	_	Adjusted Condition	ondition		con
															<u>ဗ</u>
Chemical of Concern	Cone Cone									Pass or	Soil Conc			Pass or	
	dry basis	ABI	ΑF	ABS	ទ	RM	CPF,	ĦŌ	RISK	raii	Green B. scotters	Ħ.	RISK	1217	
	mg/kg t	unitless	mg/cm²-day	unitless	unitless	mg/kg-day	kg-day/mg	unitless	unitless		me/ke	unidess	mittess		
Petroleum EC Fraction											***************************************				
AL_EC >5-6	С	_	0.2	0.03	8.0	5.7					0.00E+00				
AL_EC >6-8	139		0.2	0.03	0.8	5.7		3.3E-04			3.01E+02	7.16E-04			
AL_EC >8-10	104		0.2	0.03	8.0	0.03		4.69E-02			2.26E+02	1.02E-01			2
AL_EC >10-12	140		0.2	0.03	8.0	0.03		631E-02			3.04E+02	1.37E-01			-
	380	***	0.2	0.1	0.5	0.03		2.28E-01			8.24E+02	4.95E-01			
	300	~~~	0.2	0.1	0.5	12		2.70E-03			6.51E+02	5.86E-03			
AL_EC >21-34	28	-	0.2	0,1	0.5	2		2.52E-04			6.07E+01	5.47E-04			
AR_EC >8-10 6	66.309	-	0.2	0.03	8.0	0.05		1.79E-02			1,44E+02	3.89E-02	-		
AR_EC >10-12	10.5		0.2	0.03	8.0	0.05		2.84E-03	**********		2.28E+01	6.16E-03			
	68		0.2	0.1	0.5	0.05		2.45E-02	**********		1.47E+02	5.31E-02			
	92.9861		0.2	0.1	0.5	0.03		5.58E-02			2.02E+02	1.21E-01			
AR_EC>21-34 9	9.5994	-	0.2	0.1	0.5	0.03		5.76E-03			2.08E+01	1.25E-02			
	0.0005	***	0.2	0.0005	0.95	0.003	0.055	2.09E-06	2.75E-11		1.08E-03	4.52E-06	5.97E-11		
	0.539		0.2	0.03	, ,,,,,,	0.2		3.59E-05			1.175+00	7.79E-05			Che
	2 2		0.2	0.03	0.92	,		1.61E-03			2.60E+01	3.49E-03			
Total Nanhthalenes	95	-[-	0.2	0.00	0.7	202		3.98E-00			1.93E+00	1.30E-05			
	TK (		0.2	0.03	0.8	20.02		7.855-03	***************************************		2.06E±01	1.70E-02			for Non
	0							9	~~~		0.00E+00	00-04-00			Average
_	0		0.2	0.03	0.8	0.000057	85	*********	0.00E+00		0.00E+00	0.00E+00 0.00E+00	0.00E+00		Exposur
Ī	0.001	_	0.2	0.03	0.8	0.03	160'0	4.51E-07	9.85E-11		2.17E-03	9.78E-07	2.14E-10		Exposur
	0.005	* >	0.2	0,13	0.89		0.73		4.82E-09	for	1.08E-02		80-3501	for	Soil Ingo
	0.0003		2.0	0.13	0.89		0.73		2.89E-10	all	6.51E-04		6.28E-10		Dermal
	0.0003		0.2	0.13	0.89		0.73		2.89E-10	cPAHs	6.51E-04		6.28E-10	$\epsilon PAHs$	for Car
	0.0003	_	0.2	0.13	0.89		7.3		2.89E-09		6.51E-04	*****	6.28E-09		Averagi
	0.008	-	0.2	0.13	0.89		0.073	*******	7.72E-10		1.74E-02		1.67E-09		
	0.0003		0.2	0.13	0.89		2.92		1.16E-09		6.51E-04		2.51E-09		
-cd)pyrene	0.0003	_	0.2	0.13	0.89		0.73		2.89E-10		6.51E-04		6.28E-10		
Sum 137	1376.3405							4.61E-01	1.06E-08		2.99E+03	1.00E+00 2.31E-08	2.31E-08		

heck columns at left for Pass/Fail detail.

Check Residual Saturation (WAC (40)-747(10))	Pass or Fail? Pass	Cancer RISK= 2.308E-08	HI= 1.000E+00	TPH, mg/kg= 2985.333	Adjusted Condition			Check Residual Saturation (WAC340-747(10))	Pass or Fail? Pass	Cancer RISK= 1.064E-08	HI= 4.610E-01	TPH, mg/kg= 1376.341	Current Condition
--	--------------------	------------------------	---------------	----------------------	--------------------	--	--	--	--------------------	------------------------	---------------	----------------------	-------------------

Exposure Parameters	ters	
for Non-carcinogens		Units
Average Body Weight, ABW	91	kg
Averaging Time, AT	ð.	Υ. ·
Exposure Frequency, EF		unitless
Exposure Duration, ED	6	γr
Soil Ingestion Rate, SIR	200	mg/day
Dermal Surface Area, SA	2200	Can , ,
for Carcinogens		
Averaging time AT C	7.5	

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB22-1

		1.93E-081	1.005+00  1.95E-08	2.225.03		1.345-08	0.90E-01							1.10004.01	7. 14.42.2
			1 005 : 00	2227.22		7.45 /20	10 320 9							1548 814	Sum
		2.08E-10		2.15E-04		1,45E-10		0.73		0.89	0.13	0.2		0.00015	Indeno(1,2,3-cd)pyrene
		3.33E-09		8.62E-04		2.32E-09		2.92		0.89	0.13	0.2	_	0.0006	Dibenzo(a,h)anthracene
		1.39E-10		1,44E-03		9.65E-11		0.073		0.89	0.13	0.2		0.001	Chrysene
Averaging	*********	1.25E-08		1.29E-03		8.68E-09		7.3		0.89	0.13	0.2	_	0.0009	Benzo(a)pyrene
for Carci	c	5.54E-10		5.75E-04	cPAHs	3.86E-10		0.73		0.89	0.13	0.2		0.0004	Benzo(k)fluoranthene
Dermal Su	all	1.39E-09		1.44E-03	all	9.65E-10		0.73	•••••	0.89	0.13	0.2		0.001	Benzo(b)fluoranthene
Soil ingest	for	8.31E-10		8.62E-04	for	5.79E-10		0.73	•••••	0.89	0.13	0.2	,,,,,,	0.0006	Benzo(a)anthracene
Exposure [		1.42E-10	6.48E-07	1.44E-03		9.85E-11	4.51E-07	0.091	0.03	0.8	0.03	0.2		0.001	1,2 Dichloroethane (EDC)
Expasure I		0.00E+00	0.00E+00 0.00E+00	0.00€+00		0.00E+00		98 Us	0.000057	0.8	0.03	0.2	****	0	Ethylene Dibromide (EDB)
Averaging				0.00E+00										0	MBE
Average Bo			4.21E-06	1.87E-02			2.93E-06		0.06	0.8	0.03	0.2	*****	0.013	n-Hexane
for Non-ca			2.37E-04	2.87E-01			1.65E-04		0.02	0.89	0.13	0.2	_	0.2	Fotal Naphthalenes
			3.06E-06	4.57E-01			2.13E-06		2	0.9	0.03	0.2	_	0.318	Total Xylenes
			9.33E-05	6.97E-01			6.50E-05		0.1	0.92	0.03	0.2		0.485	Ethylbenzene
Check			1.05E-05	1.58E-01			7.33E-06		0.2		0.03	0.2	,	0.11	Toluene
		2.37E-10	1.80E-05	4.31E-03		1.65E-10	1.25E-05	0.055	0.003	0.95	0.0005	0.2		0.003	Benzene
			1.72E-02	2.87E+01			1.20E-02		0.03	0.5	0.1	0.2		19.99925	AR_EC>21-34
			4.74E-02	7.90E+01		,,-	3.30E-02		0.03	0.5	0.1	0.2		54.9961	AR_EC >16-21
			3.67E-02	1.02E+02			2.56E-02		0.05	0.5	0.1	0.2	-	71	AR_EC>12-16
			7.31E-03	2.70E+01			5.09E-03		0.05	0.8	0.03	0.2	_	8.8	AR_EC>10-12
			1.23E-02	4.55E+01		************	8.58E-03		0.05	0.8	0.03	0.2	_	31.697	AR_EC>8-10
			4.40E-04	4.88E÷01			3.06E-04		2	0.5	0.1	0.2		34	AL, EC>21-34
			2.46E-03	2.73E+02			1.71E-03		12	29	1.0	0.2	,,,,,	90	AL_EC>16-21
			6.29E-01	1.05E+03			4.38E-01		0.03	0.5	0.	0.2	****	730	AL_EC >12-16
			2.20E-01	4.88E+02			1.53E-01		0.03	0.8	0.03	0.2		340	AL_EC>10-12
Chec			2.62E-02	5.82E+01			1.83E-02		0.03	0.8	0.03	0.2	****	40.5	AL_EC>8-10
			5.35E-05	2.26E+01			3.7E-05		5.7	0.8	0.03	0.2		15.7	AL_EC >6-8
			3.37E-06	1.42E+00		~	2.3E-06		5.7	8.0	0.03	0.2	_	0.987	AL_EC >5-6
															Petroleum EC Fraction
		mides	unitless	me/ke		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
		RISK	Æ			RISK	Ψō	CPF,	RD <sub>o</sub>	2	ABS	ΑF	ABI	dry basis	or EC Group
	Fail9			being tested	Fair?									Conc	Chemical of Concern
b. Chec				Soil Conc	Passor		•				~~~	••••		Measured Soil	
conc		ondition	Adjusted Condition	4	lion	Current Condition	Car	loxicity Parameters	I oxicity l	73	aramete.	Exposure rarameters			
adjus															

a. "TPH Test" button below is for testing adjusted condition at a specified TPH centration.

eck columns at left for Pass/Fail detail.

non
Cancer RISK= 1.929E-08 Pass or Fail? Pass
HI= 1,000E+00
TPH, mg/kg= 2224,811
Adjusted Condition
Check Residual Saturation (WAC340-747(10))
Pass or Fail? Pass
Cancer RISK= 1.343E-08
HI= 6.962E-01
TPH ma/ba- 1548 814
Current Condition

Exposure Parameters	ters	
or Non-carcinogens		Units
verage Body Weight, ABW	16	kg:
veraging Time, AT	Φ	¥
xposure Frequency, EF	_	unitless
exposure Duration, ED	6	Y
oil Ingestion Rate, SIR	200	mg/day
Dermal Surface Area, SA	2200	cm²
or Carcinogens		
weraging time, AT-C	75	Уľ

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB23-4.5

		2.13E-08	1.00E+00 2.13E-08	3.12E+03		1.05E-08	4.95E-01							1542.7876	Sum
		5.85E-10		6.06E-04		2.89E-10		0.73		0.89	0.13	0.2	-	0.0003	Indeno(1,2,3-cd)pyrene
		2.34E-09		6.06E-04		1.16E-09		2.92		0.89	0.13	0.2	_	0.0003	Dibenzo(a,h)anthracene
ſ		1.36E-09		1.41E-02		6.75E-10		0.073		0.89	0.13	0.2	-	0.007	Chrysene
Averagin		5.85E-09		6.06E-04		2.89E-09		7.3		0.89	0.13	0.2		0.0003	Benzo(a)pyrene
for Car	cPAHs	5.85E-10		6.06E-04	cPAHs	2.89E-10		0.73		0.89	0.13	0.2		0.0003	Benzo(k)fluoranthene
Dermal S		5.85E-10		6.06E-04	all	2.89E-10		0.73	~~~	0.89	0.13	0.2		0.0003	Benzo(b)fluoranthene
Spil Ings	for	9.74E-09		1.01E-02	for	4.82E-09		0.73		0.89	0.13	0.2		0.005	Benzo(a)anthracene
Exposure		1.99E-10	9.11E-07	2.02E-03		9.85E-11	4.51E-07	16070	0.03	0.8	0.03	0.2	-	100.0	1,2 Dichloroethane (EDC)
III Solor		0.005+00	0.005+00 0.005+00	0.00E+00		0.005+00		85	0.000057	8.0	0.03	0.2	-	0	Ethylene Dibromide (EDB)
American				0.00E+00										0	MTBE
A versoe 3			1.91E-05	8.48E-02			9.47E-06		0.06	8.0	0.03	0.2		0.042	n-Hexane
for Non-			2.50E-05	3.03E-02			1.24E-05		0.02	68.0	0.13	0.2	<b> </b>	0.015	Total Naphthalenes
			2.03E-07	3.03E-02			1.01E-07		2	0.9	0.03	0.2		0.015	Total Xylenes
			4.06E-06	3.03E-02			2.01E-06		0.1	0.92	0.03	0.2		0.015	Ethylbenzene
7			1.16E-05	1.74E-01			5.74E-06		0.2	,	0.03	0.2		0.0861	Toluene
*****		5.56E-11	4.21E-06	1.01E-03		2.75E-11	2.09E-06	0.055	0.003	0.95	0.0005	0.2	_	0.0005	Benzene
			3.88E-02	6.46E+01			1.92E-02		0.03	0.5	0.1	0.2	-	31.9994	AR_EC >21-34
			1.336-01	2.22E+02			6.60E-02		0.03	0.5	0.1	0.2	,	109.9871	AR_EC >16-21
			1.67E-02	4.65E+01			8.28E-03		0.05	0.5	0.1	0.2	****	23	AR_EC >12-16
			9.76E-04	3.61E+00			4.83E-04		0.05	0.8	0.03	0.2	Model	1.785	AR_EC>10-12
			1.76E-02	6.52E+01			8.73E-03		0.05	0.8	0.03	0.2	_	32.27	AR_EC >8-10
			2.18E-03	2.42E+02			1.08E-03		2	0.5	0.1	0.2	-	120	Al., EC>21-34
			9.45E-03	1.05E+03	•••		4.68E-03		2	0.5	0.1	0.2	-	520	AL_EC>16-21
			6.42E-01	1.07E+03			3.18E-01		0.03	0.5	0.	0.2		530	AL_EC >12-16
			10-300.1	2.22E+02			4.96E-02		0.03	0.8	0.03	0.2		011	AL_EC >10-12
Che			3.82E-02	8.46E+0I	~~~~	•	1.89E-02		0.03	0.8	0.03	0.2	Veder	41.9	AL_EC >8-10
			9.93E-05	4.185+01		*********	4.9E-05		5.7	0.8	0.03	0.2	_	20.7	AL_EC >6-8
			4.59E-06	1.94E+00			2.3E-06		5.7	0.8	0.03	0.2	_	0.958	AL_EC >5-6
															Petroleum EC Fraction
		unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
	â	RISK	HQ.			RISK	Ð	CPF,	ē	2	ABS	AF	ABI	dry basis	or EC Group
	Fass or			being tested	Fails						*******			Conc	Chemical of Concern
b. Che	7		**********	Soll Cons	0	***************************************	******			***************************************				Measured Soil	
con		ondition	Adjusted Condition		tion	Current Condition	Cur	loxicity Parameters	oxicity	3	aramete	exposure Parameters			
adju															

 a. "TPH Test" button below is for testing adjusted condition at a specified TPH oncentration.

heck columns at left for Pass/Fail detail.

Check Residual Saturation (WAC340-747(10))	Cancer RISK= 2.130E-08 Pass or Fail? Pass	TPH, mg/kg= 3116.460 HI= 1.000E+00	Adjusted Condition		Check Residual Saturation (WAC340-747(10))	Pass or Fail? Pass	Cancer RISK= 1.054E-08	TPH, mg/kg= 1542.788 HI= 4.950E-01	Current Condition
--	---	---------------------------------------	--------------------	--	--	--------------------	------------------------	---------------------------------------	-------------------

Exposure Parameters	eters	
or Non-carcinogens		Units
lverage Body Weight, ABW	91	kg.
Averaging Time, AT	6	Y.
exposure Frequency, EF	-	unitless
Exposure Duration, ED	Ġ	<b>y</b> 3
oil Ingestion Rate, SIR	200	mg/day
Dermal Surface Area, SA	2200	em².
or Carcinogens		
veraging time, AT-C	75	¥.f.

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB24-4

		1.25E-06	1.00E+00 1.25E-06	3.32E+03		4.05E-08	3.25E-02							107.97125	Sum
		1.49E-08		1.54E-02		4.82E-10		0.73		0.89	0.13	0.2		0.0005	Indeno(1,2,3-cd)pyrene
		1.19E-07		3.08E-02		3.86E-09		2.92		0.89	0.L3	0.2	***	0.001	Dibenzo(a,h)anthracene
	Fail	1.19E-08		1.23E-01		3.86E-10		0.073		0.89	0.13	0.2	****	0.004	Chrysene
Averagi		8.91E-07		9.24E-02		2.89E-08		7.3	••••	0.89	0.13	0.2		0.003	Benzo(a)pyrene
for Ca	cPAHs	2.97E-08		3.08E-02	cPAHs	9.65E-10		0.73		0.89	0.13	0.2	lented	0.001	Benzo(k)fluoranthene
Dennal	all	8.91E-08		9.24E-02	all	2.89E-09		0.73		0.89	0.13	0.2	-	0.003	Benzo(b)fluoranthene
Soil Ing	for	8.91E-08		9.24E-02	for	2.89E-09		0.73		0.89	0.13	0.2	-	0.003	Benzo(a)anthracene
Exposur		1.52E-09	6.94E-06	1.54E-02		4.93E-11	2.26E-07	0.091	0.03	0.8	0.03	0.2		0.0005	1,2 Dichloroethane (EDC)
Exposus		0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00		85	0.000057	0.8	0.03	0.2		0	Ethylene Dibromide (EDB)
Averagi				0.00E+00										0	38.LW
Average			3,47E-06	1.54E-02			1.13E-07		0.06	9.8	0.03	0.2		0.0005	n-Hexane
for Non			1.27E-05	1.54E-02			4.13E-07		0.02	0.89	0.13	0.2	,,,,,	0.0005	Total Naphthalenes
			1.03E-07	1.54E-02			3.35E-09		2	0.9	0.03	0.2		0.0005	Total Xylenes
ĺ			2.06E-06	1.54E-02			6.70E-08		0.1	0.92	0.03	0.2	***		Ethylbenzene
Ī	******			1.54E-02			3.33E-08		0.2		0.03	0.2	name		Toluene
		4.24E-10		7.70E-03		1.38E-11	1.04E-06	0.055	0.003	0.95	0.0005	0.2		0.00025	Benzene
			3.32E-02	5.54E+01			1.08E-03		0.03	0.5	0.1	0.2	_	1.7985	AR_EC>21-34
			1.44E-01	2.40E+02			4.67E-03		0.03	0.5	0.1	0.2	_	7.786	AR_EC >16-21
			1.22E-02	3.39E+01			3.96E-04		0.05	0.5	0.1	0.2	_	=	AR_EC >12-16
			4.16E-03	1.54E+01			1.35E-04		0.05	0.8	0.03	0.2		0.4995	AR_EC >10-12
			2.76E-02	1.02E+02			8.95E-04		0.05	8.0	0.03	0.2	-	3.309	AR_EC >8-10
			2.47E-03	2.74E+02			8.01E-05		2	0.5	0.1	0.2		8.9	AL EC>21-34
			1.08E-02	1.20E+03			3.51E-04		13	0.5	92	0.2	300m	39	AL_EC >16-21
_			6.47E-01	1.08E+03			2.10E-02		0.03	0.5	0.1	0.2	,,,,,,	35	AL_EC>12-16
ſ			8.19E-02	1.82E+02			2.66E-03		0.03	0.8	0.03	0.2		5.9	AL_EC >10-12
Ī			3.69E-02	8.19E+01			1.20E-03		0.03	8.0	0.03	0.2	****	2.66	AL_EC >8-10
			7.31E-05	3.08E+01			2.4E-06		5.7	0.8	0.03	0.2			AL_EC>6-8
			7.31E-05	3.08E+01			2.4E-06		5.7	8.0	0.03	0.2	breed	0.9995	AL_EC>5-6
											#1				Petroleum EC Fraction
Ī		unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
1		RISK	ĦŌ			RISK	ð	CPF,	RM	Ð	ABS	ΑF	ABI	dry basis	or EC Group
	Fail?			being tested	Fail?									Conc	Chemical of Concern
p, Ch	Dasse			Soil Conc	Passor									Measured Soil	
8		ondition	Adjusted Condition	,	tion	Current Condition	Cur	loxicity Parameters	loxicity	38	arameter	Exposure Parameters			
ad															

- a. "TPH Test" button below is for testing adjusted condition at a specified TPH concentration.
- Check columns at left for Pass/Fail detail.

Pass or Fail? Fail
Cancer RISK= 1.246E-06
HI= 1.000E+00
TPH, mg/kg== 3324.644
Adjusted Condition
Pass or Fail? Pass
Cancer RISK= 4,048E-08
HI= 3.248E-02
TPH, mg/kg= 107.971
Current Condition

Exposure Parameters	eters	
for Non-carcinogens		Units
Average Body Weight, ABW	16	kg
Averaging Time, AT	ð	ধ :
Exposure Frequency, EF		unitless
Exposure Duration, ED	ؿ	¥
Soil Ingestion Rate, SIR	200	mg/day
Dennal Surface Area, SA	2200	cm <sup>2</sup>
for Carcinogens		
Averaging time, AT C	75	T.A.

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB27-4.5

Concern         Measured Soit         Laboure Parameters         Toxicity Parameters         Current           concern         Conc         ABI         AF         ABS         GI         RID,         CPF,         HQ           taccion         mg/mp         unitless         mg/cm <sup>2</sup> -day         unitless         mg/mp         LEC >6-8         II         II         0.2         0.03         0.8         5.7         Led-y/mg         unitless           EC >10-12         1.5         1         0.2         0.03         0.8         0.03         0.8         5.7         2.4E-06           EC >10-12         1.5         1         0.2         0.03         0.8         0.03         0.8         0.03         6.7TE-04           EC >10-12         6.2         1         0.2         0.1         0.5         0.2         0.2         0.1         0.5         0.2         2.4E-06           EC >10-12         6.2         1         0.2         0.01         0.5         2         0.00         3.3GE-03         5.8E-05         EC >1         0.02         0.03         0.8         0.05         0.03         3.3GE-03         5.7E-04         EC >1         0.02         0.03         0.8         0.05	<u></u>		4.64E-07	1.00E+00 4.64E-07	3.39E+03		3.22E-09	6.94E-03							5115.67	1136
Pass of Sail   Parameter   Parameter   Parameter   Pass of Sail Conc.	1	ľ	1.07U-00		47.500.04		100000	┿	27,2						37 64 6 5	<u> </u>
Parameter   Para		***************************************	7 795-08		2 16F-02		1.45E-10		0.73		0.89	0.13	0.2		0.00015	Indeno(1,2,3-cd)pyrene
Parameter   Para			8.34E-08		2.16E-02		5.79E-10		2.92		0.89	0.13	0.2	-	0.00015	Dibenzo(a,h)anthracene
Parameters   Par	ſ		2.09E-09		2.16E-02		1.45E-11		0.073	**********	0.89	0.13	0.2	_	0.00015	Chrysene
Parameter   Para			2.09E-07		2.16E-02		1,45E-09		7.3	*********	0.89	0.13	0.2	_	0.00015	Benzo(a)pyrene
Parameter   Para			2.09E-08		2.16E-02	cPAHs	1.45E-10		0.73		0.89	0.13	0.2		0.00015	Benzo(k)fluoranthene
Passarred Soil   Core	Дети		2.09E-08		2.16E-02	all	1.45E-10		0.73		0.89	0.13	0.2		0.00015	Benzo(b)fluoranthene
Parameter   Para	Soil		2.09E-08		2.16E-02	for	1.45E-10		0.73		0.89	0.13	0.2		0.00015	Benzo(a)anthracene
Measured Soil   Conc   Cont   Farameter   Coure   Coure   Coure   Fair	Expos		7.10E-09	3.25E-05		*****	4.93E-11		160'0	0.03	0.8	0.03	0.2	-	0.0005	1,2 Dichloroethane (EDC)
Measured Soil   Conc   Conc   Con   Massured Soil   Pass   Conc	Expos		0.00E+00	0.00E+00			0.00E+00		85	0.000057	0.8	0.03	0.2	_	0	Ethylene Dibromide (EDB)
Measured Soil   Conc	Avera				0.00E+00										0	BELM
Pass or Conc.   Conc.   Conc.   Cont.   Cont.   Cont.   Conc.   Conc	Averas			1.30E-04	5.77E-01			9.02E-07		0.06	8.0	0.03	0.2		0.004	n-Hexane
Pass or Conce   Pass or Parameters   Pass or	for N			5.95E-05	7.21E-02			4.13E-07		0.02	0.89	0.13	0.2	juqaya	0.0005	Total Naphthalenes
Measured Soil   Conc	٦			3.87E-06	5.77E-01			2.68E-08		2	0.9	0.03	0.2		0.004	Total Xylenes
Pass or   Passured Soil   Conc   Co	Γ			9.66E-06	7.21E-02			6.70E-08		0.1	0.92	0.03	0.2		0.0005	Ethylbenzene
Pass or concessor   Parameters   Parameters   Pass or concessor	J			9.61E-06	1.44E-01			6.66E-08		0.2	_	0.03	0.2		0.001	Toluene
Pass or conc   Pass			7.94E-08	6.01E-03	1.44E+00		5.51E-10	4.17E-05	0.055	0.003	0.95	0.0005	0,2	_	10.0	Benzene
Measured Soil   Conc   Conc   Cybry   Measured Soil   AB   AF   ABs   Gi   RfD   CPF   Measured Soil   Ne   Ne   Measured Soil   Ne	-			8.65E-02	1.44E+02			6.00E-04		0.03	0.5	0.1	0.2	_	0.9997	AR_EC >21-34
Measured Soil Conc dry basis         ABI         AF         ABS <sub>4</sub> GI         RRD <sub>6</sub> CPF <sub>a</sub> HQ         RISK         Fail? Fail?         Pass or being tested         Soil Conc HQ         Pass or RISK         Soil Conc Fail?         Pass or being tested         Pass or HQ         Soil Conc RISK         Pass or Pass or				1.64E-01	2.74E+02			1.14E-03		0.03	0.5	0.	0.2	-	1.89925	AR_EC >16-21
Pass or Fair   Parameters   Pass or Fair				2.60E-02	7.21E+01			1.80E-04		0.05	0.5	0.1	0.2		0.5	AR_EC>12-16
Pass or conc   Pass				1.95E-02	7.20E+01			1.35E-04		0.05	0.8	0.03	0.2	,,,,,	0,4995	AR_EC>10-12
Measured Soil   Conc   Conc   AB1   AF   AB3   G1   RfD   CPF   HQ   RISK   Fail?   Bring tested   HQ   RISK   Bring tested   HQ				3.88E-02	1.44E+02			2.69E-04		0.05	0.8	0.03	0.2		0.9955	AK_EC >8-10
Measured Soil   Conc   Conc   AB1   AF   AB3,   G1   RID,   CPF,   HQ   RISK   Fail?     Miless   mg/kg-day   milless   mg/kg-day   Mg-day/ng   miltess   Mg-day/ng   Mg-day				2.98E-03	3.32E+02			2.07E-05		2	0.5	0.1	0.2	-	2.3	AL EC >21-34
Measured Soil   Conc   Conc   dry basis   AB1   AF   ABS,   G1   RID,   CPF,   HQ   RISK   Fail?     Miless   mg/kg-day   milless   mg/kg-day   Mg-day/ng   milless   mg/kg-day   Mg-day/ng   Mg-day				8.04E-03	8.94E+02			5.58E-05		2	0.5	<u> </u>	5.0	. –	2.2	AL_EC 210-21
Measured Soil   Conc   dry basis   AB1   AF   ABS <sub>a</sub>   G1   RID <sub>a</sub>   CPF <sub>a</sub>   HQ   RISK   Fail?				4.84E-01	8.07E÷02			3.36E-03		0.03	0.5	9	0.2	. –	5.6	AL_EC>12-16
Measured Soil   Conc   dry basis   AB1   AF   ABS <sub>a</sub>   G1   RID <sub>a</sub>   CPF <sub>a</sub>   HQ   RISK   Fail?	Ī	••••		9.75E-02	2.16E+02			6.77E-04		0.03	0.8	0.03	0.2		1.5	AL_EC >10-12
	T			6.50E-02	1.445+02			4.51E-04		0.03	0.8	0.03	0.2		Armit	AL_EC >8-10
Measured Soil Conc dry basis  ABI AF ABS,  mg/kg  unitless  mg/kg  0.996  1  0.20  Exposure Parameters  Toxicity Parameters  Current Condition  Current Condition  Current Condition  Pass or Soil Conc Fail?  Pass or Soil Conc Fail?  Pass or being tested HQ RISK  Fail?  Fail?  Pass or being tested HQ RISK  Fail?  Fail?  Fail?  Fail?  Fail?  Fail?  Fail?  Fail?  Fail?				3.42E-04	1.445+02			2.45-06		5.7	0.8	0.03	0.2	****	brest	AL_EC >6-8
Exposure Parameters   Toxicity Parameters   Current Condition   Adjusted Condition				3.41E-04	1.44E+02			2.4E-06		5.7	0.8	0.03	0.2		0.996	AL_EC>5-6
Measured Soil Conc dry basis ABI AF ABS <sub>d</sub> BI  RID <sub>d</sub> BRD <sub>d</sub> BRD <sub>d</sub> BRD <sub>d</sub> CPF <sub>d</sub> BRD <sub>d</sub> BRD <sub>d</sub> CPF <sub>d</sub> BRD <sub></sub>	1															Petroleum EC Fraction
Exposure Parameters   Toxicity Parameters   Current Condition   Adjusted Condition	T	T	unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless		mg/cm <sup>3</sup> -day	unitless	mg/kg	
Exposure Parameters Toxicity Parameters Current Condition Adjusted Condition  Measured Soil Pass or Fail? being tested Fails or Fail?	1	-	RISK	Ŧ	-		RISK	Æ	CPF,	Rm	2	ABS,	AF	ABI	dry basis	or EC Group
Exposure Parameters Toxicity Parameters Current Condition Adjusted Condition  Measured Soil Page 25 Soil Conf.	7 97	Fass			being tested	Faile		~~~~							Conc	Chemical of Concern
Toxicity Parameters Current Condition Adjusted Condition		,			Soil Conc	Dage or									Measured Soil	
Table Barrel	. 0		ondition	Adjusted (	-	Tion	ent Condi	Cura	rarameters	TOXICILY	3	ar amount	- American			
	]								3	Tariair		arameter.	Exposite F			

- a. "TPH Test" button below is for testing adjusted condition at a specified TPH concentration.
   b. Check columns at left for Pass/Fail detail.

TPH, mg/kg= 23.512 H1= 6.936E-03 Cancer RISK= 3.219E-09 Pass or Fail? Pass  Adjusted Condition TPH, mg/kg= 3389.674 H1= 1.000E+00 Cancer RISK= 4.640E-07 Pass or Fail? Pass
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Von-carcingoens	Exposure Parameters	Check Residual Saturation (WAC340-747(10))	Pass or Fail?	Cancer RISK = 4.640E-07
Finance		WAC340-747(10))	Pass	IOE-07

Exposure Parameters	ters	
r Non-carcinogens		Units
verage Body Weight, ABW	16	Кg
veraging Time, AT	٥	Ÿ.
kposure Frequency, EF		unitless
sposure Duration, ED	Ġ.	Ä
oil Ingestion Rate, SIR	200	mg/day
ermal Surface Area, SA	2200	cm <sup>2</sup>
r Carcinogens		
veraging time, AT_C	75	Уï

Date: 3/27/2006 Site Name: 302095 Morton Sample Name: SB38-2.5

		3.40E-09	1.00E+00 3.40E-09	2.62E+03		2.74E-09	8.06E-01							2111.1425	Sun
		1.79E-10		1.86E-04		1.45E-10		0.73		0.89	0.13	0.2	L	0.00015	Indeno(1,2,3-cd)pyrene
		7.18E-10		1.86E-04		5.79E-10		2.92		0.89	0.13	0.2	_	0.00015	Dibenzo(a,h)anthracene
		1.79E-11		1.86E-04		1.45E-11		0.073		0.89	0.13	0.2	_	0.00015	Chrysene
Averagi		1.79E-09		1.86E-04		1.45E-09		7.3		0.89	0.13	0.2	-	0.00015	Benzo(a)pyrene
for Car	cPAHs	1.79E-10		1.86E-04	cPAHs	1.45E-10		0.73		0.89	0.13	0.2	_	0.00015	Benzo(k)fluoranthene
Dermal	all	1.79E-10		1.86E-04	all	1.45E-10		0.73		0.89	0.13	0.2		0.00015	Benzo(b)fluoranthene
Soil ing	for	1.79E-10		1.86E-04	for	1.45E-10		0.73		0.89	0.13	0.2	P****	0.00015	Benzo(a)anthracene
Exposur		1.22E-10	5.596-07	1.24E-03		9.85E-11	4.51E-07	0.091	0.03	0.8	0.03	0.2	<b>,</b>	100.0	1,2 Dichloroethane (EDC)
IIIISONIX-II		0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00		<u>85</u>	0.000057	0.8	0.03	0.2	****	0	Ethylene Dibromide (EDB)
Averagi				0.00E+00										0	MTBE
Average			7.55E-06	3.35E-02			6.09E-06		0.06	0.8	0.03	0.2	_	0.027	n-Hexane
for Non			1.02E-06	1.24E-03			8.26E-07		0.02	68.0	0.13	0.2	_	0.001	Total Naphthalenes
			8.32E-09	1.24E-03			6.71E-09		2	0.9	0.03	0.2	-	0.001	Total Xylenes
			1.66E-07	1.24E-03			1.34E-07		0.1	0.92	0.03	0.2	-	0.001	Ethylbenzene
Žį			8.26E-08	1.24E-03			6.66E-08		0.2	_	0.03	0.2	-	0.001	Toluene
*******		3.41E-11	2.59E-06	6.20E-04		2.75E-11	2.09E-06	0.055	0.003	0.95	0.0005	0.2		0.0005	Benzene
			2.23E-02	3.72E+01			1.80E-02		0.03	0.5	0.1	0.2		29.9997	AR_EC >21-34
			1.34E-01	2.23E+02			1.08E-01		0.03	0.5	0.1	0.2	2000	179.99925	AR_EC >16-21
			3.30E-02	9.18E+01			2.66E-02		0.05	0.5	0.1	0.2	-	74	AR_EC >12-16
			1.88E-03	6.94E+00			1.52E-03		0.05	8.0	0.03	0.2		5.599	AR_EC >10-12
			6.74E-03	2.49E+01			5.44E-03		0.05	8.0	0.03	0.2		20.098	AR_EC >8-10
			9.37E-04	1.04E+02			7.56E-04		2	0.5	0.1	0.2	_	84	Al., EC >21-34
			6,47E-03	7.19E+02	***************************************		5.22E-03		2	0.5	0.	0.2	_	580	AL_EC >16-21
			6.47E-01	1.08E+03	******		5.22E-01		0.03	0.5	9.	0.2	_	870	AL_EC >12-16
-			1.348-01	2.98E+02			1.08E-01		0.03	8.0	0.03	0.2	-	240	AL_EC >10-12
3			1.32E-02	2.93E+01			1.06E-02		0.03	0.8	0.03	0.2	_	23.6	AL_EC >8-10
			8.365-06	3.52E+00			6.7E-06		5.7	0.8	0.03	0.2		2.84	AL_EC>6-8
			2.86E-06	1.21E+00	••••		2.3E-06		5.7	0.8	0.03	0.2		0.973	AL_EC>5-6
															Petroleum EC Fraction
Ī		unitless	unitless	mg/kg		unitless	unitless	kg-day/mg	mg/kg-day	unitless	unitless	mg/cm²-day	unitless	mg/kg	
		RISK	ΗQ			RISK	Æ	CPF,	RID,	CI	ABS	ΑF	ABI	dry basis	or EC Group
	Faile			being tested	Fail?									Conc	Chemical of Concern
b. Cn	3			Sail Cana	0									Measured Soil	
8		ondition	Adjusted Condition		ion	Current Condition	Cur	loxicity Parameters	loxicity	3	arametei	Exposure Parameters			
adj															

a. "TPH Test" button below is for testing adjusted condition at a specified TPH oncentration.

Sheck columns at left for Pass/Fail detail.

Exposure Parameters	ters	
or Non-carcinogens		Units
Average Body Weight, ABW	16	kά
Averaging Time, AT	6	¥¥
Exposure Frequency, EF		unitless
Exposure Duration, ED	φ	Уľ
Soil Ingestion Rate, SIR	200	mg/day
Dennal Surface Area, SA	2200	cm <sup>2</sup>
or Carcinogens		
Averaging time, AT C	75	ЪŚ